

# **Assessment Of Psychophysiological Response And Specific Fine Motor Skills In Combat Units**

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## **Abstract**

Soldiers training and experience can influence the outcome of the missions, as well as their own physical integrity. The objective of this research was to analyze the psycho-physiological response and specific motor skills in an urban combat simulation with two units of infantry with different training and experience. Material and Methods: psychophysiological parameters –Heart Rate, blood oxygen saturation, glucose and blood lactate, cortical activation, anxiety and heart rate variability-, as well as fine motor skills were analyzed in 31 male soldiers of the Spanish Army, 19 belonging to the Light Infantry Brigade, and 12 to the Heavy Forces Infantry Brigade, before and after an urban combat simulation. Results and Conclusion: A combat simulation provokes an alteration of the psycho-physiological basal state in soldiers and a great unbalance in the sympathetic-vagal interaction. The specific training of Light Infantry unit involves lower metabolic, cardiovascular, and anxiogenic response not only previous, but mainly after a combat maneuver, than Heavy Infantry unit's. No differences were found in relation with fine motor skills, improving in both cases after the maneuver. This fact should be taken into account for betterment units' deployment preparation in current theaters of operations.

## **Keywords**

Anxiety; Heart Rate Variability; Lactate; Military; Stress; Training.